IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An apparatus usable with a subterranean well, comprising:

a safety valve assembly ~~is~~ controllable to selectively isolate a formation of a well from the surface of the well;

a first control line and a second control line coupled to the safety valve assembly and extending to the surface of the well, wherein the safety valve assembly is moved to an open position via hydraulic input through the first control line into a closed position via hydraulic input through the second control line; and

a pressure sensor located in the safety valve assembly to measure a pressure near the safety valve assembly.

2. (Original) The apparatus of claim 1, wherein the safety valve assembly comprises a flapper valve assembly.

3. (Original) The apparatus of claim 1, wherein the safety valve assembly comprises a valve closure element, and the pressure sensor is located near the valve closure element.

4. (Original) The apparatus of claim 3, wherein the pressure sensor is located within five feet of the valve closure element.

5. (Original) The apparatus of claim 3, wherein the safety valve assembly comprises a housing that houses the valve closure element and the pressure sensor.

6. (Original) The apparatus of claim 1, wherein the safety valve assembly is adapted to be deployed over 5,000 feet downhole.

7. (Currently amended) The apparatus of claim 1, wherein the safety valve assembly comprises:

a valve closure element adapted to be controlled by pressure in at least one of the first and second control lines ~~hydraulic line extending to the surface of the well~~.

8. (Currently amended) The apparatus of claim 7, wherein the pressure sensor is adapted to measure pressure in at least one of the first and second control lines ~~said at least one hydraulic line~~.

9. (Original) The apparatus of claim 1, wherein the pressure sensor is adapted to measure at least one of the following:

a pressure in a tubing string and an annulus pressure.

10. (Original) The apparatus of claim 1, further comprising:

a circuit to communicate an indication of the measured pressure to the surface of the well.

11. (Original) The apparatus of claim 1, wherein the pressure sensor is one of a plurality of pressure sensors in the safety valve.

12. (Original) The apparatus of claim 11, wherein the plurality of pressure sensors measure at least an annulus pressure and a pressure in a control line extending from the surface of the well to the safety valve assembly.

13. (Currently amended) A safety valve assembly usable with a subterranean well, comprising:

a housing;

a flapper located in the housing to selectively isolate a formation of the well from the surface of the well;

a flow tube;

an actuator to control movement of the flow tube to move the flapper to selectively open the valve and close the valve, the movement of the flapper to close the valve being controlled by

application of hydraulic pressure in a first direction and the movement of the flapper to open the valve being controlled by application of hydraulic pressure in a second direction, wherein the hydraulic pressure is applied from the surface of the well; and

a pressure sensor located in the housing to measure a pressure.

14. (Original) The safety valve assembly of claim 13, wherein the housing is adapted to be detachable from a tubular string extending into the well.

15. (Original) The safety valve assembly of claim 13, wherein the pressure sensor is located within five feet of the flapper.

16. (Original) The safety valve assembly of claim 13, wherein the safety valve assembly is adapted to be deployed over 5,000 feet downhole.

17. (Canceled)

18. (Currently amended) The safety valve assembly of claim 13 ~~17~~, wherein the hydraulic pressure is applied ~~actuator is adapted to move the flow tube in response to pressure~~ in at least one hydraulic line.

19. (Currently amended) The safety valve assembly of claim 18, wherein the pressure sensor is adapted to measure pressure in ~~at least one of said~~ at least one hydraulic line.

20. (Original) The safety valve assembly of claim 13, wherein the pressure sensor is adapted to measure at least one of the following:

a pressure in a tubing string and an annulus pressure.

21. (Original) The safety valve assembly of claim 13, wherein the pressure sensor is one of a plurality of pressure sensors in the safety valve.

22. (Original) The safety valve assembly of claim 21, wherein the plurality of pressure sensors measure at least an annulus pressure and a pressure in a control line extending from the surface of the well to the safety valve apparatus.

23. (Currently amended) A method usable with a subterranean well, comprising:

running a safety valve assembly downhole; ~~and~~

running a pressure sensor downhole with the safety valve assembly to measure a pressure near the safety valve assembly; and

using the pressure sensor to measure pressure in at least one hydraulic line used to control the safety valve assembly.

24. (Original) The method of claim 23, wherein the act of running the safety valve assembly comprises running a flapper valve assembly downhole.

25. (Original) The method of claim 23, wherein further comprising locating the pressure sensor near a valve closure element of the safety valve assembly.

26. (Original) The method of claim 23, further comprising:

after the act of running the pressure sensor downhole, communicating with the pressure sensor from the surface of the well.

27. (Original) The method of claim 23, further comprising:

integrating the pressure sensor with the safety valve assembly so that the safety valve assembly is located within five feet of a valve closure element of the safety valve assembly.

28. (Original) The method of claim 23, wherein the act of running the safety valve assembly downhole comprises running the safety valve assembly at least 5,000 feet downhole.

29. (Canceled)

30. (Original) The method of claim 23, further comprising:

using the pressure sensor to measure at least one of a pressure in a tubing string and an annulus pressure.

31. (Original) The method of claim 23, wherein the pressure sensor is one of a plurality of pressure sensors located in the safety valve assembly.

32. (Original) The method of claim 31, further comprising:

using the plurality of pressure sensors to measure at least an annulus pressure and a pressure in a control line extending from the surface of the well to the safety valve assembly.

33. (Currently amended) An apparatus usable with a subterranean well, comprising:

a safety valve assembly ~~is~~ controllable to selectively isolate a formation of a well from the surface of the well;

a first control line and a second control line coupled to the safety valve assembly and extending to the surface of the well, wherein the safety valve assembly is moved to an open position via hydraulic input through the first control line into a closed position via hydraulic input through the second control line; and

a temperature sensor located in the safety valve assembly to measure a temperature near the safety valve assembly.

34. (Original) The apparatus of claim 33, wherein the safety valve assembly comprises a flapper valve assembly.

35. (Original) The apparatus of claim 33, wherein the safety valve assembly comprises a valve closure element, and the temperature sensor is located near the valve closure element.

36. (Original) The apparatus of claim 35, wherein the temperature sensor is located within five feet of the valve closure element.

37. (Original) The apparatus of claim 35, wherein the safety valve assembly comprises a housing that houses the valve closure element and the temperature sensor.

38. (Original) The apparatus of claim 33, wherein the safety valve assembly is adapted to be deployed over 5,000 feet downhole.

39. (Currently amended) The apparatus of claim 33, wherein the safety valve assembly comprises:

a valve closure element adapted to be controlled by temperature in at least one of the first and second control lines ~~hydraulic line extending to the surface of the well~~.

40. (Currently amended) The apparatus of claim 39, wherein the temperature sensor is adapted to measure temperature in at least one of the first and second control lines ~~said at least one hydraulic line~~.

41. (Original) The apparatus of claim 33, wherein the temperature sensor is adapted to measure at least one of the following:

a temperature in a tubing string and an annulus temperature.

42. (Original) The apparatus of claim 33, further comprising:

a circuit to communicate an indication of the measured temperature to the surface of the well.

43. (Original) The apparatus of claim 33, wherein the temperature sensor is one of a plurality of temperature sensors in the safety valve assembly.

44. (Original) The apparatus of claim 43, wherein the plurality of temperature sensors measure at least an annulus temperature and a temperature in a control line extending from the surface of the well to the safety valve assembly.

45. (Currently amended) A safety valve assembly usable with a subterranean well, comprising:

a housing;

a flapper located in the housing to selectively isolate a formation of the well from the surface of the well;

a flow tube;

an actuator to control movement of the flow tube to move the flapper to selectively open the valve and close the valve, the movement of the flapper to close the valve being controlled by application of hydraulic pressure in a first direction and the movement of the flapper to open the valve being controlled by application of hydraulic pressure in a second direction, wherein the hydraulic pressure is applied from the surface of the well; and

a temperature sensor located in the housing to measure a temperature.

46. (Original) The safety valve assembly of claim 45, wherein the housing is adapted to be detachable from a tubular string extending into the well.

47. (Original) The safety valve assembly of claim 45, wherein the temperature sensor is located within five feet of the flapper.

48. (Original) The safety valve assembly of claim 45, wherein the safety valve assembly is adapted to be deployed over 5,000 feet downhole.

49. (Canceled)

50. (Currently amended) The safety valve assembly of claim 45 ~~49~~, wherein the hydraulic pressure is applied ~~actuator is adapted to move the flow tube in response to temperature~~ in at least one hydraulic line.

51. (Currently amended) The safety valve assembly of claim 50, wherein the temperature sensor is adapted to measure temperature in ~~at least one of said~~ at least one hydraulic line.

52. (Original) The safety valve assembly of claim 45, wherein the temperature sensor is adapted to measure at least one of the following:

a temperature in a tubing string and an annulus temperature.

53. (Original) The safety valve assembly of claim 45, wherein the temperature sensor is one of a plurality of temperature sensors in the safety valve.

54. (Original) The safety valve assembly of claim 53, wherein the plurality of temperature sensors measure at least an annulus temperature and a temperature in a control line extending from the surface of the well to the safety valve apparatus.

55. (Currently amended) A method usable with a subterranean well, comprising:

running a safety valve assembly downhole; ~~and~~

running a temperature sensor downhole with the safety valve assembly to measure a temperature near the safety valve assembly; and

controlling actuation of the safety valve assembly via hydraulic inputs provided from a surface location.

56. (Original) The method of claim 55, wherein the act of running the safety valve assembly comprises running a flapper valve assembly downhole.

57. (Original) The method of claim 55, wherein further comprising locating the temperature sensor near a valve closure element of the safety valve assembly.

58. (Original) The method of claim 55, further comprising:

after the act of running the temperature sensor downhole, communicating with the temperature sensor from the surface of the well.

59. (Original) The method of claim 55, further comprising:

integrating the temperature sensor with the safety valve assembly so that the safety valve assembly is located within five feet of a valve closure element of the safety valve assembly.

60. (Original) The method of claim 55, wherein the act of running the safety valve assembly downhole comprises running the safety valve assembly at least 5,000 feet downhole.

61. (Original) The method of claim 55, further comprising:

using the temperature sensor to measure temperature in at least one hydraulic line used to control the safety valve assembly.

62. (Original) The method of claim 55, further comprising:

using the temperature sensor to measure at least one of a temperature in a tubing string and an annulus temperature.

63. (Original) The method of claim 55, wherein the temperature sensor is one of a plurality of temperature sensors located in the safety valve assembly.

64. (Original) The method of claim 63, further comprising:

using the plurality of temperature sensors to measure at least an annulus temperature and a temperature in a control line extending from the surface of the well to the safety valve assembly.